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**PATENT**  
Attorney Docket No.: 16930-004500US

Assistant Commissioner for Patents  
Washington, D.C. 20231

On February 28, 2001

TOWNSEND and TOWNSEND and CREW LLP

By: Gay M. Marshall

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:

Richard B. Murphy

Application No.: 09/418,814

Filed: October 15, 1999

For: TARGETED VECTORS

Examiner: Gai Lee

Art Unit: 1632

**INFORMATION DISCLOSURE  
STATEMENT UNDER 37 CFR §1.97 and  
§1.98**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

The references cited on attached form PTO-1449 are being called to the attention of the Examiner. Copies of the references are enclosed. Also enclosed is a copy of the Search/Examination report corresponding to the PCT application. It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and

no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

This IDS is being filed after the mailing date of the first Office Action and more than three months after the filing date, but prior to the Notice of Allowance or Final Office Action.

Please deduct \$180.00, pursuant to 37 CFR §1.17(p), from the undersigned's Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

This Petition is submitted in triplicate.

Respectfully submitted,



Matthew E. Hinsch  
Reg. No. P-47,651

TOWNSEND and TOWNSEND and CREW LLP  
Two Embarcadero Center, 8<sup>th</sup> Floor  
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SF 1194242 v1

FORM PTO-1449 (Modified) LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)			Attorney Docket No.: 16930-004500US	Application No.: 09/418,814		
			Applicant: Richard B. Murphy			
			Filing Date: October 15, 1999	Group: 1632		
Reference Designation		U.S. PATENT DOCUMENTS				Page 1
Examiner Initial	Document No.	Date	Name	Class	Sub-class	Filing Date (If Appropriate)
1	4,569,794	2/11/86	Smith, et al.			
2	5,723,287	3/3/98	Russell, et al.			
3	5,871,727	2/16/99	Curiel			
4	5,882,877	3/16/99	Gregory, et al.			
5	5,846,782	12/8/98	Wickham, et al.			
6	5,965,541	10/12/99	Wickham, et al.			
7	5,932,210	8/3/99	Gregory, et al.			
FOREIGN PATENT DOCUMENTS						
	Document No.	Date	Country	Class	Sub-class	Translation (Yes/No)
OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)						
8	Arnberg, et al., "Fiber Genes of Adenoviruses with Tropism for the Eye and the Genital Tract"; <i>Virology</i> , 227:239-244 (1997)					
9	Douglas, et al., "Targeted gene delivery by tropism-modified adenoviral vectors"; <i>Nature Biotechnology</i> , Vol. 14, 1574 (Nov. 1996)					
10	Douglas, et al., "A system for the propagation of adenoviral vectors with genetically modified receptor specificities"; <i>Nature Biotechnology</i> , Vol. 17, 470-475 (May 1999)					
11	Harris, et al., "Strategies for targeted gene therapy"; <i>TIG</i> , Vol. 12, No. 10 400-405 (Oct. 1996)					
12	Michael, et al.; "Binding-incompetent Adenovirus Facilities Molecular Conjugate-mediated Gene Transfer by the Receptor-mediated Endocytosis Pathway"; <i>The Journal of Biological Chemistry</i> , Vol. 268, No. 10 6866-6869 (April 1993)					
13	Michael, et al., "Addition of a short peptide ligand to the adenovirus fiber protein"; <i>Gene Therapy</i> , 2:660-668 (1995)					
14	Nilson, et al., "Targeting of retroviral vectors through protease-substrate interactions"; <i>Gene Therapy</i> , 3:280-286 (1996)					
15	Ohno, et al., "Cell-specific targeting of Sindbis virus vectors displaying IgG-binding domains of protein A"; <i>Nature Biotechnology</i> , Vol. 15, 763-767 (August 1997)					
16	Stevenson, et al., "Selective Targeting of Human Cells by a Chimeric Adenovirus Vector Containing a Modified Fiber Protein"; <i>Journal of Virology</i> , Vol. 71, No. 6 4782-4790 (June 1997)					
17	Watkins, et al., "The 'adenobody' approach to viral targeting: specific and enhanced adenoviral gene delivery"; <i>Gene Therapy</i> , 4:1004-1012 (1997)					
18	Wickham, et al., "Increased In Vitro and In Vivo Gene Transfer by Adenovirus Vectors Containing Chimeric Fiber Proteins"; <i>Journal of Virology</i> , Vol. 71, No. 11 8221-8229 (Nov. 1997)					
EXAMINER		DATE CONSIDERED				

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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PATENT

Attorney Docket No.:016930 004530

Mail Stop: Patent Application  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:

Murphy

Application No.: Not Assigned

Filed: August 22, 2003

For: TARGETED VECTORS

Examiner: Not Assigned

Art Unit: Not Assigned

**INFORMATION DISCLOSURE  
STATEMENT UNDER 37 CFR §1.97 and  
§1.98**

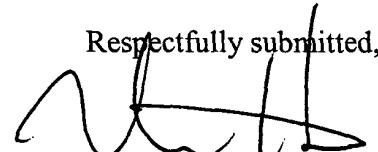
Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

The references cited on attached form PTO-1449 are being called to the attention of the Examiner. In accordance with 37 CFR §1.98(d), copies of the references on the PTO Form 1449 filed 07/10/01, can be found in Application No. **09/687,930**, filing date 10/13/00 (attorney docket number 016930 004520). Copies of the references on the Form 1449 filed 02/28/01, can be found in Application No. **09/418,814**, filing date 10/15/99 (Attorney Docket No. 016930-004500US). It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Applicant believes that no fee is required for submission of this statement, since it is being submitted prior to the first Office Action. However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,  
  
Matthew E. Hinsch  
Reg. No. 47,651

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**PATENT**  
Attorney Docket No.: 016930-004520US

Assistant Commissioner for Patents  
Washington, D.C. 20231

On July 10, 2001

TOWNSEND and TOWNSEND and CREW LLP

By:

*Joy M. Marshall*

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:

Richard B. Murphy

Application No.: 09/687,930

Filed: October 13, 2000

For: TARGETED VECTORS

Examiner:

Art Unit: 1635

**INFORMATION DISCLOSURE  
STATEMENT UNDER 37 CFR §1.97 and  
§1.98**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

The references cited on attached forms PTO-1449 are being called to the attention of the Examiner. In accordance with 37 CFR §1.98(d), copies of the references on the PTO Form 1449 filed 2/28/01 can be found in Application No. 09/418,814, filed 10/15/99 (Attorney Docket No. 016930-004500US). Copies of the references on the PTO-1449 for the instant application are enclosed. Also enclosed is a copy of the Search/Examination report corresponding to the related PCT application. It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

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Respectfully submitted,



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SF 1245253 v1

FORM PTO-1449 (Modified) LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)			Attorney Docket No.: 016930-004520US	Application No.: 09/687,930	
			Applicant: Richard B. Murphy		
			Filing Date: October 13, 2000		Group: 1635
Reference Designation		U.S. PATENT DOCUMENTS			Page 1
Examiner Initial	Document No.	Date	Name	Class	Sub-class
1	5,439,829	8/8/95	Anderson, et al.		
2	5,885,808	3/23/99	Spooner, et al.		
3	5,705,151	1/6/98	Dow, et al.		
FOREIGN PATENT DOCUMENTS					
	Document No.	Date	Country	Class	Sub-class
OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)					
4	Eck, et al., "Gene-based therapy"; Goodman & Gilman's The Pharmacological Basis of Therapeutics – Ninth Edition McGraw-Hill pp. 77-101 (1996)				
5	Kabanov & Kabanov "DNA Complexes with Polycations for the Delivery of Genetic Material into Cells" <i>Bioconjugate Chem.</i> , Vol. 6, pp. 7-20 (1995)				
6	Verma, et al. "Gene Therapy – promises, problems and prospects"; <i>Nature</i> , Vol. 389, pp. 239-242 (September 1997)				
EXAMINER		DATE CONSIDERED			

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.